ABSTRACT:

The present invention relates to a descriptor for the representation, from a
video indexing viewpoint, of motions of a camera or any kind of observer or observing
device within any sequence of frames in a video scene. The motions are at least one or
several of the following basic operations : fixed, panning (horizontal rotation), tracking

5   (horizontal transverse movement) tilting (vertical rotation), booming (vertical transverse
movement), zooming (changes of the focal length), dollying (translation along the optical
axis) and rolling (rotation around the optical axis), or any combination of at least two of these
operations. Each of said motion types, except fixed, is oriented and subdivided into two
components that stand for two different directions, and represented by means of an histogram

10   in which the values correspond to a predefined size of displacement. The invention also
relates to an image retrieval system in which a video indexing device uses said descriptor.
Fig.8